# GOVERNMENT OF INDIA
# SCIENCE AND TECHNOLOGY
# LOK SABHA

UNSTARRED QUESTION NO:3674
ANSWERED ON:16.04.2002
CYCLONE PREDICTION
A. VENKATESH NAIK

**Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:**

(a) whether cyclone prediction is far lagging behind in India;

(b) if so, whether there is a need for improvements for predicting cyclones and giving better information to farmers;

(c) if so, the steps taken/ being taken by the Government in this direction;

(d) whether any collaboration has been made with the scientists of US in this regard; and

(e) if so, the details thereof?

## Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) No, Sir. Cyclone warning system of the India Meteorological Department (IMD) is recognized as one of the best in the world.

(b) & (c) IMD`s Cyclone Warnings have been timely and accurate. However, IMD has plans to replace existing Cyclone Detection Radars by Doppler Weather Radars in a phased manner. One such radar has been commissioned at Chennai on 21st February 2002. The installation of the second Doppler Radar at Kolkata is in progress. The third Doppler Weather Radar is expected to be operational in Sriharikota by May 2002.
The Doppler Weather Radar willprovide an insight into the velocity structure of cyclonic storms and help in giving more precise forecasts about their damage potential.

(d) & (e) An MOU was signed between Department of Space/Department of Science & Technology of Government of India and NASA/NOAA of United States in December 1998 for co-operation in the areasof atmospheric sciences. Under this MOU three joint projects out of seven on subjects dealing with extraction of quantitative products such as Quantitative Precipitation, Cloud Motion Vectors and on Development of operational techniques to predict intensity and movement of tropical cyclones, have been taken up for immediate action. The principal investigators for these projects are working in close co-operation with each other.

The India Meteorological Department has established a full-fledged national cyclone warning system. This includes three Area Cyclone Warning Centers at Chennai, Kolkata and Mumbai and three Cyclone Warning Centres at Bhubaneswar, Visakhapatnam and Ahmedabad. These centers provide a proven and reliable system for cyclone warning and its dissemination to different Government functionaries, Public and other users. The cyclones are monitored for their development and movement right from their incipient stage with the help of INSAT imagery. IMD also has a chain of high power coastal radars. 10 in number, along the east and west coast each having a range of 400 Km to monitor cyclones when they are nearer the coast. As a result India`s present capability is such that no cyclone approaching the Indian coast can escape detection.